

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1-16. (cancelled)

17. (previously presented) A balloon catheter having a distal region and a proximal region, the balloon catheter comprising:

an elongate shaft extending from the distal region to the proximal region and defining a working lumen therebetween, the elongate shaft having a distal end, an inner surface and an outer surface;

an inflatable compliant balloon disposed about a portion of the distal region of the outer surface of the elongate shaft such that the shaft extends through the balloon; and

an external inflation component comprising a sleeve having an annular wall having an inner surface and an outer surface, wherein the radial distance between the inner surface of the sleeve and the outer surface of the sleeve defines a thickness of the annular wall;

wherein the sleeve is disposed longitudinally about the outer surface of the elongate shaft extending from the proximal region of the shaft to proximal of the distal end of the shaft, wherein the inner surface of the sleeve is spaced from the outer surface of the shaft, creating an annular inflation lumen in fluid communication with the balloon;

wherein the thickness of the annular wall of the sleeve tapers toward the distal end of the shaft throughout a length of the shaft while the radial distance between the outer surface of the shaft and the inner surface of the sleeve remains constant throughout the length of the shaft in which the thickness of the annular wall tapers, resulting in a catheter with a tapered distal region.

18. (original) The catheter of claim 17, wherein a distal end of the balloon is attached to the distal region of the shaft and a proximal end of the balloon is attached to a distal end of the sleeve.

19. (original) The catheter of claim 18, wherein the sleeve is a single layer polymer, the sleeve being attached to an inflation hub at a proximal end of the sleeve.

20. (original) The catheter of claim 17, wherein the annular inflation lumen has a diameter of about 0.002 inches at the distal end of the sleeve.

21. (original) The catheter of claim 17, wherein the annular inflation lumen has a diameter of about 0.004 inches at a proximal end of the sleeve.

22-25. (cancelled)

26. (previously presented) A balloon catheter having a distal region and a proximal region, the balloon catheter comprising:

an elongate shaft extending from the distal region to the proximal region and defining a working lumen therebetween, the elongate shaft having a distal end, an inner surface and an outer surface;

an inflatable compliant balloon disposed about a portion of the distal region of the outer surface of the elongate shaft such that the shaft extends through the balloon; and

an external inflation component comprising a sleeve having an annular wall having an inner surface and an outer surface, wherein the radial distance between the inner surface of the sleeve and the outer surface of the sleeve defines a thickness of the annular wall;

wherein the sleeve is disposed longitudinally about the outer surface of the elongate shaft extending from the proximal region of the shaft to proximal of the distal end of the shaft, wherein the inner surface of the sleeve is spaced from the outer surface of the shaft, creating an annular inflation lumen in fluid communication with the balloon;

wherein both the outer surface of the sleeve and the outer surface of the shaft taper toward the distal end of the shaft throughout a length of the shaft while the radial distance between the outer surface of the shaft and the inner surface of the sleeve remains constant throughout the length of the shaft in which the outer surface of the sleeve and the outer surface of the shaft tapers, resulting in a catheter with a tapered distal region.